

On June 17, 1934, while investigating a local swamp, I found an interesting variation of the above nest-type. It was situated in a rather open part of the swamp on a bed of twigs and branches which formed a strong foundation and raised the nest above the surface of the water. The plants round about, mainly water plantain (*Alisma Plantago-aquatica* Linn.), were rather short and scanty and consequently the sora had been unable to build the usual canopy of over-arching leaf-blades above its nest. To conceal its eggs when away from the nest, therefore, it had carefully covered them with a layer of leaf-scrap, probably raked up from the edges of the nest. At first glance the nest seemed nothing more than a mass of sodden vegetation but on closer scrutiny patches of light brown could be seen peeping through the leafy covering. The above habit of covering the eggs at once brings to mind analagous cases, such as the Pied-billed Grebe (*Podilymbus podiceps* Linn.) and other birds which regularly cover their eggs with nest material before leaving.

In the nest were seven whole eggs and fragments of two more, while floating in the water

below were two others which had been accidentally dislodged by the brooding bird. I have observed a similar loss of eggs on another occasion, this time from a sixteen-egg clutch. Again in this case two eggs had fallen out and were floating in the water beneath the nest. Such large sets are usually arranged in two or three layers or tiers so that all the eggs can be covered by the incubating bird. Shifting and rearranging such a mass of eggs so that all may mature equally must present a task of considerable difficulty to the parent bird. A large set literally fills the nest, and it is easy to see how an egg may be accidentally dislodged when the bird is settling down on the nest, or hurriedly preparing to vacate it when alarmed.

In the first case I replaced the two dislodged eggs and was surprised to find on returning several days later (June 22) that all the eggs had hatched. It is probable that the two eggs had not been out of the nest for long, although the eggs of some birds show a remarkably degree of vitality even when removed from the nest for several days, provided that they are not too greatly chilled.

ADDITIONS TO THE AGARICACEAE OF THE OTTAWA DISTRICT¹

By J. WALTON GROVES



APPROXIMATELY three hundred species of mushrooms have been reported from the Ottawa district by Mr. W. S. Odell². In view of the approaching summer meeting of the American Association for the Advancement of Science to be held in Ottawa in 1938, it has been thought desirable to bring the list of recorded species up to date and make it as complete as possible. During the last two summers the writer has spent considerable time on the collection and identification of mushrooms, and several new records have been found. In addition there are in the herbarium of the Division of Botany, Central Experimental Farm, a number of collections made by the late John Macoun, and which include a number of species not reported by Mr. Odell³. In many instances the specimens

are in poor condition, and since they lack notes on the fresh condition, they may be considered of doubtful authenticity. These specimens have been submitted to Dr. John Dearnness of London, Ontario, and in cases where he has indicated that he felt satisfied with the identification, the records have been included.

All of the species reported in this paper are represented by specimens deposited in the herbarium of the Division of Botany, Central Experimental Farm, and the numbers cited with the records below, refer to the herbarium numbers. The collections have been made within a radius of approximately twenty-five miles of Ottawa, and except where otherwise stated, the determination of the species has been made by the writer.

WHITE SPORED

Amanita russuloides Peck

F. 5581. Burnet, Que. July 14, 1935. Det. M. Timonin.

F. 7636. Graham Bay, Ont. Aug. 12, 1937.

Amanitopsis strangulata (Fries) Roze

¹ Contribution No. 530 from the Division of Botany, Central Experimental Farms Branch, Department of Agriculture, Ottawa, Canada.

² Victoria Memorial Museum (now National Museum of Canada) Bull. No. 43, Biological Series No. 11, Ottawa, 1926.

³ *Canadian Field-Naturalist*, 45:139-141, 1931.

F. 7582. Eardley, Que. Sept. 22, 1937.

Amanitopsis vaginata var. *fulva* (Schaeff.) Fries
F. 6986. Graham Bay, Ont. Sept. 18, 1936.

Amanitopsis vaginata is a very variable species and several different varieties have been described, based chiefly on the colour. The writer has found two colour forms in this district, one gray, the other brown. Odell has reported *A. vaginata* and since Lange in a recent work has indicated that he considered the gray form to be typical of the species and called the brown form var. *fulva*, this interpretation is followed here.

Cantharellus umbonatus Fries

F. 7556. Eardley, Que. Oct. 10, 1937. Det.
H. A. C. Jackson.

Clitocybe adirondackensis Peck

F. 7916. Wakefield, Que. Aug. 20, 1903.
Conf. J. Dearness.

Clitocybe carnosior Peck

F. 7917. Wakefield, Que. Aug. 16, 1903. Det.
J. Dearness.

This species is very closely related to *Clitocybe clavipes* Fr. from which it may be distinguished by the forked gills.

Clitocybe cartilaginea (Bull.) Bresadola

F. 7001. Driveway, Ottawa, Ont. Oct. 5,
1936.

F. 7173. Driveway, Ottawa, Ont. Oct. 15,
1936.

F. 7584. Green's Island, Ottawa, Ont. Oct.
8, 1937.

This species seems to be very similar to *Clitocybe multicaps* Peck, but darker in colour, dark brown rather than whitish.

Clitocybe dealbata (Sowerby) Fries

F. 7590. Central Exp. Farm, Ottawa, Ont.
Sept. 29, 1937.

Clitocybe decora Fries

F. 7559. Eardley, Que. Oct. 10, 1937.

Clitocybe ctypoides Peck

F. 7515. Burnet, Que. Aug. 22, 1937.

F. 7578. Eardley, Que. Sept. 22, 1937.

F. 7918. Wakefield, Que. Aug. 6, 1903.
Conf. J. Dearness.

F. 7919. Wakefield, Que. Aug. 24, 1903.
Conf. J. Dearness.

Clitocybe fragrans (Sowerby) Quelet

F. 7503. Burnet, Que. Aug. 22, 1937.

Clitocybe morbifera Peck

F. 7012. Central Exp. Farm, Ottawa, Ont.
Sept. 24, 1936.

F. 7583. Central Exp. Farm, Ottawa, Ont.
Oct. 2, 1937.

This is a small, white species growing on lawns. It is similar to *Clitocybe dealbata* Fr. but differs in being slightly hygrophonous. It is said to be poisonous.

Clitocybe sinopica Fries

F. 7435. Burnet, Que. July 1, 1937.

F. 7547. Eardley, Que. Sept. 22, 1930. Det.
W. S. Odell.

Collybia aquosa Fries var. Kauffman

F. 7415. Burnet, Que. June 21, 1937.

These plants agreed with Kauffman's description of a variety of *Collybia aquosa* Fr. which he did not name.

Collybia conigenoides Ellis

F. 7920. Rockcliffe Park, Ottawa, Ont.
Sept. 14, 1898. Det. J. Dearness.

Collybia myriadophylla Peck

F. 6030. Chelsea, Que. Sept. 1935 Det. I.
L. Conners.

F. 7921. Kingsmere, Que. Aug. 8, 1934.
Det. I. L. Conners.

Collybia stipitaria Fries

F. 7922. Wakefield, Que. July 23, 1903.
Conf. J. Dearness.

Collybia stipitaria var. *setipes* Peck

F. 7923. Wakefield, Que. July 27, 1903.
Conf. J. Dearness.

Collybia zonata Peck

F. 7509. Burnet, Que. Aug. 21, 1937.

Hygrophorus chlorophanus Fries

F. 7931. Wakefield, Que. Aug. 14, 1903.
Conf. J. Dearness.

Hygrophorus cuspiatus Peck

F. 7933. Wakefield, Que. July 30, 1903. Det.
J. Macoun

Dr. Peck's description of this species was based on specimens sent him from Ottawa by Macoun. This is a later collection named by Macoun and presumably authentic.

Hygrophorus immutabilis Pk.

F. 7914. Wakefield, Que. July 27, 1903.
Conf. J. Dearness.

Hygrophorus miniatus Fries

F. 7942. Kingsmere, Que. Aug. 8, 1934.
Det. I. L. Conners.

F. 7943. Wakefield, Que. Aug. 14, 1903.
Conf. J. Dearness.

Hygrophorus cantherellus Schw.

F. 7434. Ottawa, Ont. July 14, 1937.

Hygrophorus pratensis var. *pallidus* Berkeley

F. 7506. Arboretum, Central Exp. Farm,
Ottawa, Ont. Aug. 20, 1937.

- Hygrophorus sordidus* Peck
F. 7958. Burnet, Que. Sept. 20, 1934. Det. M. Timonin.
- Laccaria laccata* var. *amethystina* Bolt.
F. 7445. Central Exp. Farm, Ottawa, Ont. July 19, 1937.
- Laccaria striatula* Peck
F. 7501. Dow's Swamp, Ottawa, Ont. Aug. 18, 1937.
- Lactarius aspidicus* Fries
F. 7574. Eardley, Que. Sept. 22, 1937.
- Lactarius cilicioides* Fries
F. 7697. Green's Creek, Ont. Sept. 18, 1928. Det. W. S. Odell.
- Lactarius minuscula* Burlingham
F. 7561. Eardley, Que. Sept. 22, 1937.
- Lactarius oculatus* (Peck) Burlingham
F. 7588. Dow's Swamp, Ottawa, Ont. Sept. 30, 1937.
- Lactarius trivialis* var. *viridilactis* Kauffman
F. 5702. Burnet, Que. Sept. 30, 1934. Det. I. L. Connors.
- Lentinus spretus* Peck
F. 5670. Burnet, Que. Aug. 19, 1935.
F. 7637. Ottawa, Ont. Aug. 10, 1937.
- Lentinus tigrinus* (Bull.) Fries
F. 1349. Woodroffe, Ont. July 16, 1930. Det. J. Dearness.
- Lepiota glischra* Morgan
F. 6956. Central Exp. Farm, Ottawa, Ont. Oct. 1, 1936.
- Lepiota rubrotincta* Peck
F. 7632. Ottawa, Ont. July 22, 1937.
- Marasmius siccus* (Schw.) Fries
F. 7961. Rockcliffe Park, Ottawa, Ont. Sept. 6, 1892. Conf. J. Dearness.
F. 7962. Rockcliffe Park, Ottawa, Ont. Sept. 7, 1898. Conf. J. Dearness.
F. 7963. Wakefield, Que. July 24, 1903. Conf. J. Dearness.
- Marasmius velutipes* Berkeley and Curtis
F. 7964. Rockcliffe Park, Ottawa, Ont. Sept. 28, 1898. Conf. J. Dearness.
- Mycena immaculata* Peck
F. 7443. Ramsayville, Ont. July 21, 1937.
- Mycena polygramma* (Bull.) Fries
F. 7965. Old Chelsea, Que. Aug. 26, 1934. Det. M. Timonin.
- Panus operculatus* Berkeley & Curtis
F. 7966. Fairy Lake, Que. Oct. 20, 1902. Conf. J. Dearness.
- Panus salicinus* Peck
F. 7967. Ottawa, Ont. 1892. Conf. J. Dearness.
- F. 7968. Aylmer, Que. Oct. 30, 1898. Conf. J. Dearness.
- F. 7969. Britannia, Ont. Oct. 10, 1902. Conf. J. Dearness.
- Plcurotus applicatus* (Batsch) Fries
F. 6945. Chelsea, Que. Oct. 9, 1936.
F. 7981. Fairy Lake, Que. Oct. 20, 1902. Conf. J. Dearness.
- Plcurotus porrigens* (Pers.) Fries
F. 7535. Eardley, Que. Oct. 10, 1937.
- Russula compacta* Frost and Peck
F. 7456. Ottawa, Ont. July 27, 1937.
F. 7517. Ottawa, Ont. Aug. 20, 1937.
- Russula cyanoxantha* (Schaeff.) Fries
F. 7572. Eardley, Que. Sept. 22, 1937.
- Russula flava* Romell
F. 7634. Burnet, Que. Aug. 14, 1937.
F. 7982. Ironsides, Que. July 31, 1903. Det. J. Dearness.
- Russula fragilis* (Pers.) Fr.
F. 7048. Chelsea, Que. Oct. 9, 1936.
- Tricholoma arcuatum* (Bull.) Fries
F. 7983. Arboretum, Central Exp. Farm, Ottawa, Ont. Nov. 1935. Det. H. T. Güssow.
- Tricholoma imbricatum* Fries
F. 7984. Rockcliffe Park, Ottawa, Ont. Sept. 22, 1898. Conf. J. Dearness.
- Tricholoma nudum* (Bull.) Fries
F. 6957. Central Exp. Farm, Ottawa, Ont. Sept. 16, 1936.
F. 6959. Central Exp. Farm, Ottawa, Ont. Sept. 24, 1936.

This species must be carefully distinguished from the common *Tricholoma personatum*. It is a deeper blue, has slightly smaller spores and the spore point is a slightly different colour.

PINK SPORED

- Clitopilus undatus* Fries
F. 7507. Chelsea, Que. July 28, 1937.
- Entoloma grayanum* Peck
F. 7924. Wakefield, Que. Aug. 13, 1903. Conf. J. Dearness.
- Entoloma sericeum* Fries
F. 7587. Arboretum, Central Exp. Farm, Ottawa, Ont. Sept. 27, 1937.
F. 7925. Burnet, Que. Sept. 20, 1934. Det. M. Timonin.
- Leptonia asprella* Fries
F. 7440. Dow's Swamp, Ottawa, Ont. July 14, 1937.

Nolanea papillata Bresadola

F. 6975. Arboretum, Central Exp. Farm,
Ottawa, Ont. Sept. 9, 1936.

Pluteus admirabilis Peck

F. 7454. Chelsea, Que. July 28, 1937.

Pluteus granularis var. *umbrosellus* Atkinson

F. 7020. Burnet, Que. Oct. 11, 1936.

Pluteus leoninus Fries

F. 6978. Burnet, Que. Sept. 13, 1936.

Volvaria pusilla (Pers.) Fr.

F. 5721. In greenhouse, Arboretum, Central
Exp. Farm, Ottawa, Ont. Aug. 19, 1932.
Det. H. T. Güssow.

OCHRE SPORED

Bolbitius vitellinus Fries

F. 7446. Constance Bay, Ont. June 30,
1937.

Cortinarius semisanguineus (Fries) Kauffman

F. 7006. Graham Bay, Ont. Sept. 18, 1936.

Hebeloma Colvini Peck

F. 7926. Ottawa, Ont. Sept. 25, 1934. Det.
M. Timonin.

Inocybe caesariata Fries

F. 7409. Tenaga, Que. May 25, 1937.

Inocybe excoriata Peck

F. 7959. Cascades, Que. Aug. 13, 1903.
Conf. J. Dearness.

Inocybe fastigiata (Schaeff.) Fries

F. 6988. Arboretum, Central Exp. Farm,
Ottawa, Ont. Sept. 2, 1936.

Inocybe geophylla Fries

F. 7960. Rockcliffe Park, Ottawa, Ont.
Sept. 29, 1896. Conf. J. Dearness.

Pholiota albocrenulata Peck

F. 1359. Arboretum, Central Exp. Farm,
Ottawa, Ont. July 18, 1930. Det. I.
Mounce.

F. 7635. Graham Bay, Ont. Aug. 12, 1937.

Pholiota aurivella (Batsch.) Fries

F. 1643. Central Exp. Farm, Ottawa, Ont.
Sept. 6, 1930. Det. L. O. Overholts.

F. 3650. Central Exp. Farm, Ottawa, Ont.
Sept. 22, 1933.

Pholiota destruens Brond

F. 1388. Arboretum, Central Exp. Farm,
Ottawa, Ont. Aug. 25, 1930. Det. E.
Eardley.

F. 7014. Burnet, Que. Oct. 11, 1936.

Pholiota discolor Peck

F. 7016. Burnet, Que. Oct. 11, 1936.

Pholiota ombrophila Fries

F. 6961. Central Exp. Farm, Ottawa, Ont.
Sept. 8, 1936

Pholiota squarrosa (Mull.) Fries

F. 1550. Arboretum, Central Exp. Farm,
Ottawa, Ont. Sept. 20, 1930. Det. L. O.
Overholts.

PURPLE BROWN SPORED

Hypholoma capnoides Fries

F. 7562. Burnet, Que. Oct. 11, 1937.

F. 7539. Eardley, Que. Oct. 10, 1937.

Hypholoma incertum var. *sylvestris* Kauffman

F. 7046. Burnet, Que. Sept. 20, 1936.

Psalliota comtula Fries

F. 6983. Central Exp. Farm, Ottawa, Ont.
Sept. 16, 1936.

Psalliota micromegetha Peck

F. 6968. Ottawa, Ont. Sept. 24, 1936.

BLACK SPORED

Psathyrella disseminata Fries

F. 7025. Ottawa, Ont. Sept. 16, 1936.

NOTES AND OBSERVATIONS

THE INFLUX OF THE RED FOX AND ITS COLOUR PHASES INTO THE BARREN LANDS.—From Fort Churchill on the west side of Hudson Bay, the timber line runs roughly northwest till about 120 miles due west of Eskimo Point, (which is about 160 miles north of Churchill); from here it bears away to the west. The fringe of the timber line is composed of sparse clumps of spruce, varying in height from three to ten feet.

In 1926, (when I first came to Eskimo Point) and until 1932, the only fur caught and traded at this point was the white fox. During the winter of 1932, one or two red foxes were caught and traded into the inland post of Padley. These came from the timber line, or at least near it. Though this was unusual, it was not surprising as such an event might possibly be due to these foxes straying from the bush.